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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,478	02/05/2004	Barry Linkert	1578.197 (10879-US-PAT)	4973

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EXAMINER	
BETIT, JACOB F	

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2169	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/772,478	LINKERT ET AL.	
	Examiner	Art Unit	
	Jacob F. Bétit	2169	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 August 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Remarks

1. In response to communications filed on 18 August 2007, claims 1-4, 8, 9, 10, 12, and 15 have been amended per the applicant's request. Claims 1-20 are presently pending in the application.

2. The applicant's response points to paragraphs in the specification by paragraph number, however, there are no paragraph numbers found in the specification as filed. In the future, the applicant is directed to point to sections of the specification by page and line number.

3. It is noted that the amendment to claim 10 fails to comply with 37 CFR §1.121 because it includes markings to show changes from a prior version but has a status identifier of "presently presented". For the purpose of examining, it is assumed that it was meant "currently amended".

Continued Examination Under 37 CFR 1.114

4. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 18 August 2008 has been entered.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 103 that form the basis for the rejections under this section made in this Office action:

6. The following is a quotation of 35 U.S.C. 102(e) which forms the basis for all obviousness rejections set forth in this Office action:

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Yianilos et al. (U.S. patent application publication No. 2002/0029214 A1).

As to claim 1, Yianilos et al. teaches an apparatus for a radio communication system having a network part that maintains a network-copy of a first database containing data and a mobile node that maintains mobile-copy of the first database containing data, the first database being comprised of a plurality of records, a record being comprised of a plurality of fields, each field being populated with data, the data of the network-copy and data of the mobile-copy of the database, corresponding when the data in the network-copy of the first database and the data in the mobile-copy of the first database match one another, said apparatus for altering the data of at least one of the network-copy and the mobile-copy of the at least the first database to place the network-copy and the mobile-copy in match with each other, said apparatus comprising:

a hash generator embodied at the mobile node and receiving data from the mobile-copy of the first database, said hash generator forming first and second hash values of data received by said hash generator, hash values being more computationally complex to determine than, and different from, checksums, the first type of hash value being computed over the first database using a first technique, the second has value being computed over an individual record of the first database using a second technique, the first hash being formed for communication to the network part to determine whether the network-copy and the mobile-copy are in match with one

another, said second hash value being computed and communicated to the network part, after said first hash value has been computed and communicated to the network part and used by the network part to determine that the network-copy and the mobile-copy are not in match with one another (see paragraph 0013, paragraph 0025, paragraph 0062 and paragraph 0067); and

a content retriever embodied at the mobile node, said content retriever retrieving data from the mobile-copy of the first database upon receipt of a first signal, the first signal originating from the network part and indicating that the network part's determination that the network-copy of the first database and the mobile-copy of the first database are out of match, the first signal being sent by the network part after the network part receives both the first hash value and the second hash value, data retrieved by said content retriever for communication to the network part, and is used by the network part to synchronize the network-copy and the mobile-copy to each other (see paragraph 0062 and paragraph 0067).

As to claim 2, Yianilos et al. teaches wherein said hash generator generates the first hash values responsive to an external triggering event, occurrence of which is detectable at the mobile node (see paragraph 0083).

As to claim 3, Yianilos et al. teaches wherein said hash generator generates the second hash values responsive to an external triggering event, occurrence of which is detectable at the mobile node (see paragraph 0083).

As to claim 4, Yianilos et al. teaches wherein said hash generator generates the first-type hashes upon detection of an external triggering event, the occurrence of which is [detected] at the mobile node and wherein said hash generator generates the second-type hashes responsive to a network part determination that the first-type hashes, generated by said hash generator did not match a first hash generated by the network part (see paragraph 0062 and paragraph 0067).

As to claim 5, Yianilos et al. teaches wherein the data maintained at the network-copy and the mobile-copy of the first database is comprised of data records, each data record being comprised of fields including at least a first key field and at least a first record field, and wherein the second-type hashes [are generated] by said hash generator are formed of values of the at least the first key field (see paragraph 0069).

As to claim 6, Yianilos et al. teaches wherein the determination that the network-copy and the mobile-copy are out of match is made responsive to values of the second-type hashes formed of the values of the at least the key field (see paragraph 0067 and see paragraph 0083).

As to claim 7, Yianilos et al. teaches wherein the data retrieved by said content retriever comprises both the at least the first key field and the at least the first record field (see paragraph 0069).

As to claim 8, Yianilos et al. teaches wherein the network part comprises:

a determiner embodied at the network part and which receives hash values generated by said hash generator embodied at the mobile node, said determiner determining whether the hash values generated by the hash generator at the mobile node, match with corresponding hash values generated at the network part (see paragraph 0083); and

a requestor coupled to said determiner and receiving indications that a hash value from the mobile node does not match a corresponding hash value generated at the network part, said requester requesting from the mobile node, additional information associated with the mobile-copy of the first database (see paragraph 0067).

As to claim 9, Yianilos et al. teaches wherein the hash values generated at the network part include said first hash value and said second hash value (see paragraph 0062 and paragraph 0067).

As to claim 10, Yianilos et al. teaches wherein the additional information requested by said requestor comprises a request for the mobile node to deliver the second hash value to the comparator (see paragraph 0067).

As to claim 11, Yianilos et al. teaches wherein the data maintained at the network-copy and the mobile-copy of the first database is comprised of data records and wherein the additional information requested by said requestor comprises a request for the mobile node to deliver at least portions of the data records (see paragraph 0067).

As to claim 12, Yianilos et al. teaches further comprising a comparator adapted to receive from the mobile node, data records or portions thereof and adapted to compare data records or portions thereof from the mobile node, to corresponding values of the network-copy of the first database (see paragraphs 0081-0082).

As to claim 13, Yianilos et al. teaches further comprising a database value updater coupled to said comparator, said database value updater being responsive to comparisons made by said comparator to alter at least one data record of a selected one of the mobile-copy and the network-copy of the at least the first database (see paragraph 0067).

As to claim 14, Yianilos et al. teaches wherein said database value updater operates pursuant to a selected conflict resolution protocol (see paragraph 0082).

As to claim 15, Yianilos et al. teaches a method for a radio communication system having a network part that maintains a network-copy of a first database and a mobile node that maintains a mobile-copy of a first database, the first database being comprised oof a plurality of records, a record being comprised of a plurality of fields and each field being populated with data, the network-copy and the mobile-copy of the first database corresponding to each other when data in the network-copy and data in the mobile-copy of the first database are match one another, said method for synchronizing the network copy of the first database with the mobile copy of the first database said method comprising:

sending a first hash value that is calculated from the first database using a first technique, from the mobile node to the network part, the first hash value representative of the mobile-copy of the first database (see paragraph 0013, paragraph 0025, paragraph 0062, and paragraph 0067);

comparing, at the network part, the first hash value received from the mobile node, to a second hash value calculated at the network part, the second hash value being calculated from the network-copy of the first database and representative of the network copy of the first database; and requesting from the mobile node, a third hash value that is calculated at the mobile node over a first individual record of the mobile-copy of the first database using a second technique (see paragraph 0062 and paragraph 0067); and

at the network part, comparing the third hash value received form the mobile to a fourth hash value calculated at the network part over the network copy of said first individual record using said second technique using said second technique; wherein the has values are more computationally intensive and different from checksums; and wherein the network copy of the

first database and the mobile node copy of the first database are determined to be different form each other when the first and second hash values are different form each other or when the third and fourth hash values are different from each other (see paragraph 0062 and paragraph 0067).

As to claim 16, Yianilos et al. teaches wherein the third hash value is calculated from the first portion of the mobile node copy of the first database and wherein the fourth hash value is calculated from a corresponding first portion of the network copy of the first database (see paragraph 0062 and paragraph 0067).

As to claim 17, Yianilos et al. teaches further comprising the operations of:

requesting at least a portion of the mobile-copy of the first database [that is] transimitted from the mobile node to the network in response to a comparison of the third hash value to the fourth hash value (see paragraph 0067).

As to claim 18, Yianilos et al. teaches further comprising the operations of:

delivering a portion of the mobile-copy to the network part (see paragraph 0067),

comparing the portion of the mobile copy delivered to the network part with a corresponding portion of the network-copy of the first database (see paragraph 0067 and paragraph 0083), and

overwriting portions of the network-copy of the first database and the mobile-copy of the database responsive to comparisons made during said operation of comparing the portions of the mobile-copy to the network copy (see paragraph 0067).

As to claim 19, Yianilos et al. teaches wherein a selected one of the network-copy and the mobile-copy are overwritten according to a conflict resolution scheme (see paragraph 0062 and see paragraph 0067).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yianilos et al.

As to claim 20, Yianilos et al. does not distinctly disclose further comprising the operation of creating a change-history by indicating which portions of the database were overwritten.

However, it was well known to one having ordinary skill in the art at the time of the invention to create a change-history of databases as evidenced by paragraph 0012 of Yianilos et al. Therefore while Yianilos et al. employs techniques that do not require creating a change-

history it would be obvious to one of ordinary skill in the art to create a log so that old revisions can be recovered.

Response to Arguments

10. Applicant's arguments filed 18 August 2008 have been fully considered but they are not persuasive.

In response to the applicant's amendment directed towards a hash value being different than a checksum, while the applicant's specification does give basis for this limitation, it is not clear from the specification how the hashes are different from checksums. Further, Yianilos et al. uses digests or hashes throughout the specification and only refers to checksums in the claims. Further, when referred to in the claims the checksums are not being used to detect differences in versions but rather to check for error correction. Therefore, since digests are generally more computationally complicated that checksums, it is believed that Yianilos et al. does in fact teach this limitation.

In response to the applicant's arguments directed towards the requirement that different techniques be used of finding a hash value of the entire databases versus finding of hash values of individual records, the arguments have been considered, but are not deemed persuasive. Yianilos et al. teaches using an XOR function to combine digests of sets of records, see paragraphs 0062-0063. According to paragraph 0062 if the key range is set to include the entire range of records in the database, the digest of the records includes the XOR of the digests of all the records in the subtree rooted at the child. Therefore since a single record does not include the

XOR of any of the digests of child records, the method of creating the digest for the single records at the bottom of the tree would be different.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacob F. Betit whose telephone number is (571)272-4075. The examiner can normally be reached on Monday through Friday 10:30 am to 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/Tony Mahmoudi/
Supervisory Patent Examiner, Art Unit 2169

/jfb/
Examiner, Art Unit 2169
3 Nov 2008